

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number:

**049128-5018**

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed  
Name \_\_\_\_\_Application Number:  
**09/893,676**Filed:  
**June 29, 2001**First Named Inventor:  
**Hyeon Ho SON, et al.**Art Unit:  
**2674**Examiner:  
**J. Nguyen**

Applicant(s) request(s) review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages are provided.

I am the

☐

applicant/inventor.

☐assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.☒

attorney or agent of record.

Registration number **41,480**☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
\_\_\_\_\_  
Signature**Kyle J. Choi**

Typed or printed name

**(202)739-5388**

Telephone number

**April 3, 2006**

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒\*Total of **1** form is submitted.



**Response Under 37 C.F.R. § 1.116  
Expedited Procedure  
Examining Group 2674**

PATENT  
Attorney Docket No. 049128-5018

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Hyeon Ho SON, <i>et al.</i>	)	Confirmation No.: 9570
Application No.: 09/893,676	)	Art Unit: 2674
Filed: June 29, 2001	)	Examiner: J. Nguyen
For: METHOD OF DRIVING LIQUID	)	<b>Mail Stop <u>AF</u></b>
CRYSTAL DISPLAY	)	

U.S. Patent and Trademark Office  
**Customer Window, Mail Stop AF**  
Alexandria, VA 22314

Sir:

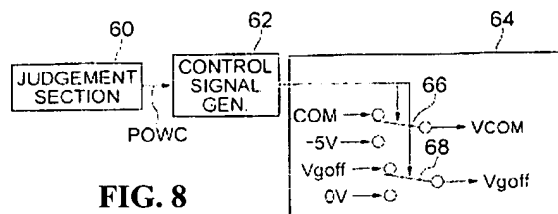
**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

In response to the final Office Action of November 1, 2005 and Advisory Action of February 24, 2006, the time for response being extended until April 3, 2006 as April 1, 2006 falls on a Saturday, Applicants respectfully request for a pre-Appeal Brief review of the pending rejections. A Notice of Appeal and a request for two-month extension of time are filed concurrently herewith.

Independent claims 1 and 13 recite, in part, "applying a reference common voltage to the plurality of the liquid crystal cells." In both instances, the recited step is part of "a method of driving a liquid crystal display device during one display frame." As asserted in the after-final response filed on January 30, 2006 incorporated herein by reference and reasserted here, Zavracky et al. and Sugawara et al. both fail to teach or suggest such a step.

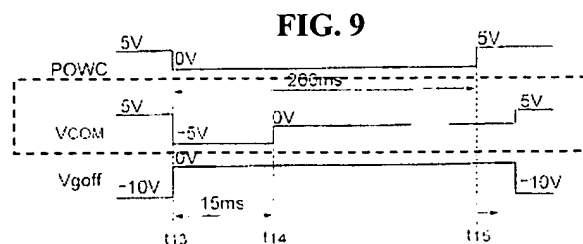
The Office acknowledges Zavracky et al. does not teach or suggest such a step and relies on Sugawara et al. to cure the deficiency. Applicants assert that Sugawara et al. also fails to teach or suggest such a step because the  $V_{com}=0V$  relied upon in the rejection is not a "common

reference voltage” as explained in more detail in the previous after-final response. (See After-Final Response: p. 9, last paragraph – p. 10, top paragraph.) More specifically, as reproduced below, FIG. 8 of Sugawara et al. shows circuit (64) including a switch (66) that connects the Vcom line to only two voltages; either the common voltage COM (+5V) or -5 voltage (-5V), depending on the signal from the control signal generator block (62).



Applicants note that *there is no “0V” source (i.e., the alleged “common reference voltage”) that the circuit (64) applies to the Vcom line.* Accordingly, the “0V” shown in FIG. 9 is not “a common reference voltage” being applied to the liquid crystal cells as recited in the claims and is taken out of context disclosed in Sugawara et al.

As reproduced below, FIG. 9 is a timing diagram that shows the waveform present on the Vcom line during operation of circuit (64).



As shown, when the switch (66) connects to the common voltage COM, FIG. 9 shows a +5V on the Vcom line. When switch (66) connects to -5 voltage, FIG. 9 shows a -5V on the Vcom line. Since circuit (64) of FIG. 8 does not connect Vcom to a “0V” source, the “0V” state indicated in

FIG. 9 is not a “common reference voltage.” Rather, as described in the specification, the “0V” shown in FIG. 9 is merely an indication of when power is absent (i.e., *absence of voltage*) between switching of the display mode of Sugawara’s device. (See col. 6, lns. 59-60.) As stated, “the common electrode potential Vcom...*assumes* zero volt if the power source is off.” (Col. 6, lns. 57-60.) In other words, FIG. 9 shows a state when Vcom “assumes” a value of zero to indicate when the power source is off. It does not teach “applying a reference common voltage” in the context of the claimed invention. It only indicates that the Vcom goes to zero when the power source is switched off.

In this context, even if, *in arguendo*, Zavracky et al. is modified by Sugawara et al.’s method of reducing flicker, at best, the combination of Zavracky et al. and Sugawara et al. would teach modifying Zavracky et al. with a display mode switching procedure as taught by Sugawara et al., where Vcom assumes a 0V state when there is no power to the LCD during the switching operation. The combination still fails to teach or suggest at least the step of “applying a reference common voltage to the plurality of liquid crystal cells after applying the one of the high-level common voltage and the low-level common voltage” as recited in independent claim 1 or at least the step of “applying a reference common voltage to the plurality of the liquid crystal cells after the allowing of the liquid crystal cells to respond” as recited in independent claim 13.

### CONCLUSION

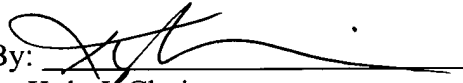
In view of the foregoing, Applicants respectfully assert that the rejections in the Final Office Action should be found to be in error and therefore should be withdrawn.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**

Dated: April 3, 2006

By:   
Kyle J. Choi  
Reg. No. 41,480

**Customer No.: 009626**  
**MORGAN, LEWIS & BOCKIUS LLP**  
1111 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004  
Telephone: 202.739.3000  
Facsimile: 202.739.3001